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SUPPOSED CASE OF CHOLERA INFANTUM.

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I SEND the following report of a case that seemed somewhat unusual, as well on account of the symptoms, as from its suddenly fatal termination. Owing to a difference of opinion as to the diagnosis, I am induced to give the details of the case, together with the reasons upon which the diverse opinions were based.

The patient, a child of about 22 months, had been suffering for several weeks from cutting teeth, which had caused a deranged condition of the bowels. During the week previous to the final attack, there had been considerable improvement, until Thursday, August 2, when there occurred an almost entire suppression of urine, what was secreted being of a very dark color. This yielded to the use of diuretics, and in the course of twenty-four hours the secretion was fully restored, and continued so. The suppression was followed by a slight anasarca.

Through the day before his death, he appeared much better; in the evening was singing, and was quite lively and cheerful. About midnight, he awoke, complaining of some pain, like colic. Aniseseed-tea was given, and he soon fell asleep, but awoke again, in a little time, with considerable nausea and retching, although there was scarcely any vomiting. This continued through the remainder of the night. It was remarked by the parents, that after each attack of retching, he seemed a good deal prostrated. There was but one motion of the bowels—about six o'clock in the morning. This presented no unusul appearance.

About 7, so great a change was noticed that I was sent for, and saw the patient a little before 8. At that time there was retching, with coldness of the surface, severe colic pains and tenesmus, and the eyeballs were sunken; the child being, in fact, in a state of collapse, and, with the previous symptoms, showing evidences of what I considered it to be, a case of cholera infantum. As soon as possible, a small powder of calomel, combined with sugar and nutmeg-powder was given, followed by five drops of paregoric. Bottles of hot water were applied to the extremities, and an injection of starch and opium was prepared, but before it could be administered the patient sank away and died.

Shortly after death there began to be, at the back of the neck, discoloration of the skin, which extended down between the shoulders and across the small of the back.

After the death of the child, and after I had left the house, a neighboring physician happened in, and remarked that it was the most singular case he had ever met with in his practice, and requested an examination. This was assented to, and the time was fixed for six o'clock in the evening of the same day. I was notified of the arrangement, but, having professional business which occupied me, I was not able to attend till half past seven. When I reached the house, I found the examination had been made, by the physician referred to, assisted by his partner and several other medical friends. The abdominal and thoracic viscera were examined, and as the incision was closed up, I asked what were the *post-mortem* appearances? The answer was—"an enlargement of the liver and spleen, congestion of the lungs, heart and kidneys, with some effusion into the cavity of the pleura."

The conclusion arrived at was, that death was the result of congestion of the lungs. My opinion was formed from an exhibition of the symptoms I have detailed, and strengthened by the authorities consulted. Believing epidemic cholera and cholera of infants to be owing to similar pathological conditions, I deem the following remarks of Watson in relation to the former to be applicable to cases of the latter. He says:—"The course of the symptoms varied a good deal in different persons. Sometimes the vomiting and purging soon ceased, and sometimes there was *neither sickness nor diarrhœa at all*, but rapid collapse and sinking. *These were thought the most formidable cases.* However the peculiar secretions might be poured forth, in some instances, none of them were ejected from the body."

"A patient died of cholera in the Middlesex Hospital, without any vomiting or purging, but on examination of the body, we found the intestines quite full of the rice-water serous fluid." (In this case, and while the body was being prepared for interment, and after the examination, a large quantity of thin, watery fluid was ejected from the mouth and nose.)

Again, in a case reported by Dr. Morland, in Vol. LXI. of this JOURNAL, a child was brought to his office on Friday, at 8 o'clock, P.M., and while there "threw from the stomach, without effort, a little liquid of an acid odor." That night, "it became suddenly ill, grew worse, and died early on Saturday morning, its symptoms being distinctly those of cholera infantum." As described by the mother, "the whole thing was so quickly over, that there was no time to send for the doctor."

Dr. Coale also reported, at a subsequent meeting, a case of a child, a year old, which he was called to see at 9 in the morning. It was then moribund—it was well at midnight. In another case, "a child was brought to his office between 3 and 4 in the afternoon, with diarrhœa, but without vomiting. He called to see it the same evening, and found it dying, having had the symptoms of cholera only about four hours."

Such were the evidences which tended, as I estimated them, to confirm the diagnosis I had made.

On the other hand, the diagnosis of pulmonary congestion seemed opposed by many considerations. In the first place, although the stomach and intestines were not opened, I could not expect that a *post-mortem* examination would reveal the cause of death in a case that had proved so suddenly fatal. Authors agree in this, and although the liver is said to be almost always enlarged in cholera infantum, this condition might be observed without such connection. I considered, too, that the changes in appearance of the various organs would be greater after death than before, from the gravitation of blood, more particularly as a manifest stagnation and treacle-like state of the blood was apparent in the face, from the straining efforts caused by the tenesmus. Again, in the "Cyclopædia of Practical Medicine," Article *Pneumonia,* we find it stated in relation to some of the changes that take place in the engorged lung, that these are "more a cadaveric than a pathological process." It says, further, "We do not maintain that there is no interstitial serous effusion during life; the analogy of other inflamed parts renders it probable that it does take place, but, we suspect, by no means to the extent which is commonly found in the engorged lung after death." Also, "the connection of congestion with inflammation is still more forcibly illustrated in the pneumonia of the moribund, in which the blood, imperfectly oxygenated through the failure of the respiratory forces, accumulates in the pulmonary vessels, which *even then* become the seat of inflammatory action, and, if the agony or change of death be of long duration, produce those changes which are recognized as the results of ordinary pneumonia." I make these references to show that, although in this case, as I was informed by a medical man who was present at the examination, there was no serous exudation from the lung when cut into, we might have signs of congestion without such having been the condition of the lung before death, I think, then, I may reasonably object to the existence of pulmonary congestion during life, being confirmed by the *post-mortem* appearances, since similar appearances of the heart, liver, kidneys, &c., would indicate these to have been owing to a "cadaveric rather than a pathological process."

The absence, too, of the physical signs of engorgement, the fever, hurried breathing, crepitus, puerile respiration, &c., would afford additional argument against such an hypothesis.

An analysis of the case may therefore be presented as follows:

1. The changes that would naturally take place in the twelve hours that elapsed before the examination, would be so great as to throw a doubt upon the *post-mortem* appearances as evidence of the cause of death.

2. The symptoms of the case, before death, would afford stronger proofs of its nature than the *post-mortem* appearances.

3. If there had been so grave disease of the thoracic viscera, there must have been some of the physical signs during life.

And, lastly, the retching, with sinking after, the colic pains, the tenesmus, the sinking of the eyeballs, and the "rapid collapse and sinking," though there was no vomiting nor purging, might justify the diagnosis of cholera infantum.

Stanstead, Canada East, August, 1860.

THE BED CASE,

OR AN IMAGINARY AFFECTION WHICH CONFINES THE PATIENT IN BED, AND IS PRECEDED OR NOT BY DISEASE.

By Walter Channing, M.D.

[Continued from page 99.]

The question recurs, what is to be done in the Bed Case for the removal of various deformities which lying in bed, certain positions, and an incidental, but unnatural action of muscles may produce. This can best be done, and only done, by disturbing the whole conditions on which curvature and other deformities have been produced.

In the first place, position is to be changed. The patient is to get, or be moved out of bed. It is there she has had her disease formed and ministered to, and out of this she must come. It may not be possible to accomplish this at once, but by degrees, positive degrees, it will be done. It will be painful, exceedingly painful; so it is with the man who has been on his back for three months on account of compound fracture of the thigh or leg, and all the time subjected to antagonistic forces to keep the limb straight. He has got to move, and to use his leg as freely as before the fracture; and to begin this must be painful, it may be exquisitely so. It is begun, of course, and always succeeds. A contraction, however, which nearly resembles those of the Bed Case, is that which occurs to the muscles of the lower jaw, and by which the mouth becomes gradually, but completely and permanently shut. Here is no disease of the muscles. Their action is exaggerated, simply because they have nothing else to do but to contract. It is quite curious to observe that however slow such a process may be, it will surely in time be perfect.

Now this contraction may be overcome, and by pressure applied in the only way it can be used in this particular case. It may be interrupted or continuous pressure, as circumstances indicate, or rather permit. Prof. Mott, of New York, has been successful in the use of violent force, in overcoming the obstacles to recovery in cases of chronic shut-mouth, and has proved how true is that principle which finds relief in natural living functions, rather than in artificial supports. As soon as a morbidly contracted muscle is straightened, the muscles which have been useless are called into action. They must and will act if alive, and in this action is the first and most important step to recovery.

But how preserve them in their places? The straightened muscle will contract as soon as the power is removed, and the antagonist muscles have not regained power enough in their temporary contraction to prevent this. Habit, continued action in a certain direction, is in such a case a paramount power, and must be obeyed. There is much apparent truth in this, and it becomes for the most part practical truth by the manner in which the patient is left after the painful trial to remove distortion has been made, and this successfully. In such a case the will of the patient must be brought into activity, however painful its exercise, and its organs made to obey it. The position must be such, however difficult it may be voluntarily to sustain it, as will tend to bring into line that which has been so long crooked, and to keep it straight. But there is apparatus by which to accomplish it. True, We have apparatus of brass, of steel, of wood, and cord. I have looked at such with surprise that human ingenuity had been so tasked to accomplish an end for a being in whom is ever living, and ready to act, an apparatus which Infinite Wisdom has contrived and executed, and which is equal to all the demands that can ever be made upon it. And now what has been the result of the human contrivance? Not the universal result, as recovery may often happen in spite of it, and would have occurred without it. What is the known result? Where is the apparatus, or the principle, upon which it acts? It is for extension and counter-extension. The points of support (*les points d'appui*) are not bed rails or boards, but living textures—the arm-pits or the hips. One result is excoriation, ulceration of these points. At times, the patient suffers extreme pain. I have now in mind a young woman who has been fourteen years bed-rid, who ascribes the continuance and increase of her disease to an apparatus, which produced extreme distress on the points of support of the hips, and ultimately such a loss of power as almost to prevent, for a time, motion altogether. Other effects are there. There may be straightness of the spine and comfort in motion while the apparatus is applied. But as soon as it is removed, the column bends at once, and the old agony invariably returns. How true is this last result in regard to abdominal supporters, so called. They never cure. They may give temporary relief, though not always; but as soon as they are removed, the old suffering returns. Our Bed Case may leave the bed in her casings, but she gets no cure by them. As far as the means of recovery are concerned, she too

> "Is naked, though locked up in steel."

Whence the failure? The organs of support, and of motion, have acquired no power, no use by the apparatus. They have been quiet, though the body may have been in motion. Had they been free to move, the old suffering would have existed, and the old deformity would, as far as the machine is concerned, have come back again. Attempts have been made to combine *rest* and *motion* in the same arrangement. But to useful practical ends, can such union be made? Is not the good destroyed by the evil—their copartnership, or exact balance, leaving things precisely as they were before?

The true apparatus for such cases exists within. It is not used, because pain attends and may follow its use. After a time, though the original trouble may have been greatly lessened or removed, the long absence of use—permanent contractions—and quiescence of antagonists, will make motion as painful as it ever has been. The agents in the recovery are the muscles, that living apparatus which survives so long neglect, and which so often shows itself ready for use, and under circumstances, too, which astonish both patients and friends. The motive power is the will—the will of the patient, or the will of others. The causes of its exercise are various, and often declare themselves active when least looked for. The body, which has been at rest for years, which has never been expected to move again, as if imbued by some new principle of motion leaves its long resting-place, and at once lives again with the moving world. The performances of Mesmerism have been said to be quite wonderful. It has said, "take up thy bed and walk," and half the miracle, at least, has been performed. No apparatus has been used. No preparatory exercises have been enacted. The bird has been drawn from its nest, and has flown away. One is unconsciously moved to rhetoric, sometimes, even in physic. The reader may find an apology for this unusual burst, when I come to the cases.

It was while speaking of the womb in its relation to the Bed Case, that I became involved in spinal troubles and treatment. The whole uterine system itself, and its appendages, are allied to this case. Functional and many organic affections accompany, produce, and give to it its characteristics. Among these are various morbid conditions of the mouth and neck of the organ. Such are chronic inflammation, induration, ulceration and enlargement of these portions of this organ. Morbid irritability, neuralgia, with or without changes in structure, are closely related to the Bed Case. So are displacements, especially when accompanied by enlargements, and when in consequence of this, or by position of the organ in its healthy size and state, pressure come to be made upon parts of the pelvic cavity, which ordinarily are not subjected to that pressure. It may be this pressure is made upon the ovaries or an ovary, upon the rectum and hollow of the sacrum, or forward upon the bladder and symphysis, on the sides of the pelvis, or against the muscles, bloodvessels, nerves, which belong to or have their courses through the pelvis to the lower extremities. Such lesions of place may farther, and do, put upon the stretch the natural supports of the womb and its appendages, and thus may come to disturb the natural condition and relations of these supports. Many and most of these agencies and conditions are accompanied with more or less pain or uneasiness. This pain or uneasiness is constant, or, at least, one or the other is in some degree for the most part perceived. Especially is this the case in the *erect posture*. Even when not felt, there is a consciousness perpetually disturbing the patient that she is not well—that she is not as others who have none of her troubles—that she cannot exert herself—that she must give up—that she must go to bed.

We have already treated of the symptoms of the Bed Case, and which come of sympathy or of reflex action. These are believed to have more or less connection, or dependence, on functional or organic disturbances of the uterine system. The disease in question shows how intimate may be the connections of important general disease, or disorder, with uterine disease. It was just shown that local pain or uneasiness is a most frequent attendant on certain uterine disease, with or without displacement, and that the Bed Case is, for the most part, the result of such morbid sensibility of the parts concerned. I say, *certain* uterine troubles, for our disease is by no means a consequence of, or necessary attendant on, malignant disease of the organs concerned. We indeed find that in the progress of some maladies, the bed at length comes to be demanded. But in such, it is the demand of the disease, the stern necessity of utter prostration, or of inability to sustain the erect posture—as in the case of a broken limb—which forces the patient to bed; the last stage in the malignant malady before the grave. Such patients resist to the last, and go to the bed to die. It is in non-malignant uterine diseases, we find the most frequent causes of the Bed Case. These are frequently accompanied by functional disturbances which add greatly to their agencies in producing the Bed Case. We have leucorrhœa—bloody, serous, purulent, muco-purulent, and other secretions. These are drains, exhausting drains from a system which may not be well nourished, and which add greatly to the general debility.

Pain was spoken of as a very common and persistent symptom of the Bed Case. It may not be severe, and is most troublesome in the erect posture—while walking, in attempts to stand, to walk, to ride—in short, in every species of exercise in which there is motion of the trunk and extremities attempted, and especially if performed in the erect posture. Long-continuous pain, or merely uneasiness, will come gradually to produce effects which are very striking to patient and friends. The perpetual consciousness of the existence of organs, or of separate portions of the living body, though this consciousness may not be constituted or kept up by severe pain, will at length come to show itself, and in a great variety of ways. No one at all acquainted with the laws of life, with the results of agencies which disturb living organs, and the existence of which is only declared by morbid sensations, especially when long-continued—no one will be surprised at these effects. The constant dropping will wear the stone. A constant fret will wear the garment. So will the body and the mind give way—be conquered, by such agencies as we have been considering, and present the characteristic features of the Bed Case. The known existence of a disease which is unaccompanied with pain, and of an organ whose healthful state is not necessary to life, will come at last to produce uneasiness, discomfort, morbid mental conditions, very disturbing to their subject, but which disappear, often at once, whenever the offending part is removed, or by the cure of the malady.

II.—THE MIND.—We have now reached a very interesting question in our inquiries. What are the mental phenomena presented by the Bed Case? These are various. Sometimes they indicate a mental condition, which is the direct product of the disease. Sometimes they get their character from individual peculiarities, or intellectual habits, and moral idiosyncrasies. The patient is of literary habits—a student, or a writer, or both. The sick-room becomes a study. It is selected with care as to aspect, and especially the prospect. Sun, air, and view, are studied, until the most perfect arrangements are made which circumstances permit. Books, pictures—whatever will make the interior more agreeable—are collected. Society has been provided for in the choice social relations and habits of the individual. Preparations for a sort of moral and intellectual hibernation have been made (the winter lasting through the year, and it may be many years too), and the sufferer enters upon a new life, with the sole prospect of passing from "bed to sofa" and from sofa to bed, it may be for life, as a refuge from a thousand annoyances, and, at all events, as presenting the best chances for any portion of physical comfort.

The sick life, corresponds with the sick room. Books are written and read. Friends are assiduous with their attentions to prevent such a life from becoming intolerable, and to render it even agreeable. The nicest fruits, and the most exquisite flowers, are selected. The whole of nature and of art are put under contribution. Everything is done, and beautifully done, too, and year after year glides by, leaving behind them pleasant memories, and gilding the future with hopes, if not of better things, of freer and brighter days. This, to be sure, is the golden side of the shield. It has its reverse, as all other and like things have. There are pain, discomfort, depression, in this sick life. Motion is so intolerable, often, that it is rarely attempted, except under the strongest motives from the physician and friends. And these sometimes suffer some abatement in the qualities of kindness and considerateness, in consequence of their vain attempts to serve the sufferer. Opium, however, comes in, to such cases, with its promises and performances of solace and sleep; and if the time of disease is lengthened by it, the days and years are made less wretched.

In this class of Bed Cases, which, to be sure, has but few examples, the bodily condition may undergo but slight changes. The complexion may become fairer, more delicate by an always in-door life, and the weight may be increased by varieties of nourishing food, and by the slight waste which entire rest, and the absence of grave care, often involve. Intellectual habits secure varied and grateful occupation. There is talking, and reading, and writing it may be. The life may be passed much in the past, but when its pleasant is at our call, the present may be agreable enough. The religious sentiment may be entire, and this, even in its occasional exaggerations, as with all other circumstances of the Bed Case, it is likely to be, brings with it enough of resignation to make the patient comfortable, and a willing waiter upon the future. The temper is preserved in the present class; fretfulness, dissatisfaction, impatience, are rarely present, or, should either or all of them occur, there is a wide garment of charity for such infirmities, and they are soon covered up and forgotten.

I have spoken now of an extremely interesting class of patients. They do not constitute the whole or the greater number. Still, in their various modifications, these elements are frequently met with. From what is here affirmed, may be gathered the circumstances or symptoms of other cases. In these, from their length, from their hopelessness, effort for cure is gradually given up, and the bed is the home of the sick. In these we have sometimes great emaciation; some symptom—it may be cough—is gradually established, and some of the imitative signs of phthisis may be present. In these, the mind may suffer with the body; weakness extends to this, and moral manifestations made, and grow habitual, which are anything else but agreeable. Often in these, dissatisfaction and discontent declare themselves very strongly; and, as is common in some other forms of mental weakness, the friends of the patient, those who, by night and by day, do most to make their sufferings less, are the patient or impatient recipients of most of the current complaints.

One fact in this history deserves notice, as it has some bearing on diagnosis, prognosis, and treatment. It is the force—the intensity—let us use the best word—the exaggeration, which characterizes the expression of the whole views of the patient. No matter what may be the subject of conversation, this characteristic of it is very generally present. It doubtless has effects beyond itself. It may be upon the patient, or on friends. The former comes to estimate the severity of her case by her habitual descriptions of it, and as these grow in strength, her consciousness of the hopelessness of her condition is increased. The physician and friends are in great danger of a like influence until, at length, the case is abandoned; or, what most frequently happens, it passes into the current quackery, and drifts about into whatever directions such an agency, or mere accident, may impel it.

There is another fact in this connection which deserves notice, being involved in others enumerated. The Bed Case becomes thoroughly acquainted with whatever may be done for relief. The prescriptions are all inquired into and studied, and their effects are stored. Suppose, now, a new physician is called in. He examines the case, but as the patient is thoroughly versed in symptoms, he will find himself anticipated by the rapid enumeration of symptoms he may be quietly hunting for, and a continuous story come of his first question, as it were a text on which the patient was to discourse. He suggests remedies. "O, I have used that most thoroughly. That never agreed with me. I do not understand that, and it has been a rule with me, never, never to use what I do not perfectly understand." Galvanism is suggested. "I have studied Golding Bird, and in my case he would never recommend that,"—and so on for hours; for the time of visits to such cases are almost without end, certainly without one on which any safe calculation can be made.

How perfectly natural is this, and how illustrative is this part of our history of the disease. The mind has become, in a sense, a part of the body. Its activity, which in health controlled its own faculties, and the physical over which the intellectual has rule, has its power in the service of the body, and its whole operations acknowledge the legitimacy of the usurping empire. This exists, the whole of it, and consists with the perfect consciousness of what is precisely the mental relation with the physical. The reasoning is perfect, and the conduct is entirely harmonious. Different, and especially opposing views are argued out and down, and with a force which leaves very little chance for successful reply. The whole of the mind, and its greater activity, which may be the consequence of physical inability, comes into the service of the patient, and in its paramount development leaves the field in her hands. Every physician at all conversant with the Bed Case in full expression, must have been struck with what has so often and strongly been impressed upon the writer. In this view of it, no disease makes a stronger claim on the best regards of the medical man than this. It is not insanity; and yet the mind has so far lost its prerogative, as to demand of the physician the best remedial management of a disease which has so far led it captive, and which has in itself no certain means of relief.

[To be continued.]

FALLS FROM GREAT HEIGHTS FOLLOWED BY SLIGHT INJURY.

MR. GEORGE MALLETT relates *(British Medical Journal)* the two following remarkable examples of this:—

CASE I. occurred about sixty years ago; and about twenty-five or twenty-six years since, it came to my knowledge under the following circumstances:—

At the period last named I was requested to visit a poor man, who had been suffering severely for four days. I found him in great agony from retention of urine, none of which had passed the bladder for four days. Many ineffectual attempts had been made for his relief by an irregular practitioner, but, unfortunately, he had been unable to introduce the catheter. The patient was about seventy years old, and presented the following symptoms:—The skin was hot; the face red, and much emaciated; the pulse was rapid and very feeble; the mouth and tongue hot, parched, and covered by a thick coating of dark fur—in fact, presenting such an appearance as would be expected from so long a retention of urine. With great difficulty a large catheter was introduced, and from five to six pints of urine were drawn off; the first was very ammoniacal, and the latter portion semipurulent and bloody. The catheter was introduced twice a day for three days, when the man died.

The day before his death he was very cheerful; and, in a jocular manner, said, "that in his younger days he had met with a bad fall, but he feared he had then suffered a worse one, as he had fallen into the hands of the doctor."

He explained himself by stating, that when placing some of the masonry upon the highest part of the tower of a church called St. George's, in this town, his foot slipped, and he was precipitated from the top to the bottom, the distance being at least one hundred and twenty feet; and that the fall was uninterrupted by any intervening scaffolding, so as to diminish the impetus of the descent. He added, that he was so little injured that he was able to resume his occupation in a few days.

Upon making subsequent inquiry, I found his story to be strictly correct, with the addition, that his head fell upon some sheet lead, which was extended upon the ground, and that the force was so great that a deep impression was made upon the lead by the skull.

CASE II.—On December 8, 1859, I was called upon to visit another curious case, which recalled to my recollection the notes I had made of the preceding one.

A collier, aged about 50, was descending a pit or coal-mine in a way frequently followed; but certainly such a mode of descent ought not to be permitted, as it is unquestionably dangerous. The descent is made by placing one foot in a ring or kind of stirrup, at the same time holding the rope with one or both hands. He had not descended more than four or five yards, when, by some accident which he cannot explain, his foot was knocked or slipped out of the ring, and his hold of the rope at the same time giving way, he fell at once to the bottom of the pit, a distance of at least one hundred and thirty-five feet. There was nothing to break or mitigate the force of the fall. He was found alive, but groaning and constantly muttering, "O my children! O my children!" He was brought up, and I saw him about an hour after the accident. He appeared to be moribund. The pulse was not to be felt at the wrist, the extremities were cold, and respiration was very difficult and painful. The slightest motion gave exquisite pain, and I could not attempt to ascertain what amount of injury the trunk had sustained. There was some contusion, with extravasation of blood, at the posterior part of the right thigh, a slight laceration of the scalp, and the knuckles of both hands were slightly excoriated and swollen, probably from his instinctively throwing out his arms in the vain hope of saving himself, and so striking the sides of the pit. These were the only injuries I could discover, as all the bones of the extremities were sound. He was placed in bed, in the easiest position, which was lying on his back, but rather inclining to the right side. Bottles filled with hot water, and hot bricks, were applied to the extremities, and brandy and water was ordered to be given every half hour until warmth was restored.

I then left him, and certainly did not expect to see him alive again; but, to my surprise, on the following morning, I found him much improved. His pulse, although still feeble, was regular and distinct; warmth had also returned to the extremities. The bladder had emptied itself naturally. The chief complaint now appeared to be on the right side; a careful examination of which showed that three or four of the lower ribs were fractured, which, upon the slightest movement, caused the greatest suffering, and rendered the breathing so difficult as to threaten instant suffocation. The chest was bound up, and beef-tea, &c., were ordered.

On the third day the bowels were moved, the pain diminished, and the respiration easier. From this time the improvement was gradual, and without interruption; so that, on December 25th, he was so much improved as to be able to walk down stairs, and the only remaining complaint was a slight pain at the side when drawing a deep inspiration.

I have said little or nothing respecting the treatment, simply because little or no treatment was required. It was one of those numerous cases of which it has been justly said, "Nature cures, and man has the credit."

Undoubtedly, it is difficult to conceive, under any circumstances, how the human frame could, without greater injury, have sustained such shocks as must have been inflicted upon it in these cases. It would have been natural to suppose that the momentum or force acquired by the bodies falling through so great a space, would have been sufficient to have dashed them into mangled and disordered masses, more especially as they could not have fallen upon substances more unfavorable—lead in the one case and solid rock in the other.

ON THE ILLUMINATION OF THE CAVITIES OF THE BODY BY MEANS OF ELECTRICITY.

By M. Fonssagrives.

A long time ago, the author had conceived the idea that the electrical light might be advantageously substituted in diagnostic researches, or in operative manœuvres, for the ordinary methods of illumination, which are either insufficient in intensity, or defective by the color of the light, or embarrassing by the impossibility of using them without interfering with the space required for instruments, and by the necessity, on account of the heat evolved, of keeping the light at a great distance from the surface to be illuminated. The whole problem consisted in discovering a source of light, with little or no calorific action, which might be condensed in tubes of small size and of diversified form, and which would be of sufficient whiteness not to alter materially the color of the organic textures lighted up by means of it. By the assistance of M. Th. du Moncel and M. Ruhmkorff, this problem seems to have been solved in a satisfactory manner. M. du Moncel, having observed that the vacuum tubes of Geissler do not become heated under the influence of the electric light transmitted through them, and knowing, moreover, that this light is more brilliant in proportion as the tubes of communication between the terminal balls of the apparatus are of a smaller diameter, suggested that, in taking an apparatus of that kind, in which a long tube, almost capillary in size, should be bent upon itself, and convoluted in the manner of the electro-magnetic multipliers, we might obtain not only a kind of luminous cylinder, capable of being introduced into narrow cavities, but even a kind of electrical beacon, on certain points of which the light might be concentrated, without any risk either of over-heating or of commotions of any kind. The first part of the problem was, therefore, solved. With regard to the color of the light in the tubes, as this depends entirely on the nature of the gas on which the vacuum has been made, and as the color is white with certain mixed gases, as carburetted hydrogen, carbonic acid, hydrochloric acid, &c., all that is required to meet this part of the problem is to prepare the tubes with suitable gases. M. Ruhmkorff, to whom the construction of these tubes was entrusted, and who has introduced several improvements in their formation, has obtained results which are quite satisfactory. He has found out a mixture of gas, which gives a suitable white light in the tubes; and experience has shown that the amount of light afforded by the apparatus is more than sufficient for the requirements of medicine and surgery.

Without for the present tracing absolutely the field of application of this new means of illumination, the following may nevertheless be pointed out:—1. As a means of diagnostic exploration, in the examination of accessible organic passages, for the purpose of recognising their normal or pathological condition. 2. As means of illumination to assist experimental action. It is easy to foresee the utility of this means in those operations which present, among their greatest difficulties, the impossibility of lightening up suitably the surfaces on which instruments are to act. In particular, the following will derive advantage from this new application—1st, Staphyloraphy; 2d, Operations for vesico-vaginal fistula; 3d, Extirpation of naso-pharyngeal or uterine polypi; 4th, Excision of the tonsils, &c. Certain dental operations, also, may be expected to be rendered more easy of execution by this proceeding. It may be questioned, also, whether the field of the retina might not be illuminated more easily and completely by the same means.—*Acad. des Sciences*, Jan., 1860.

INFLUENCE OF FATTY BODIES ON THE SOLUBILITY OF ARSENIOUS ACID.

By M. Blondlot.

The remarkable fact, to which the author calls the attention of toxicologists, is the property which fatty bodies possess of presenting an obstacle to the solubility of arsenious acid, either in plain water, or in water slightly acid, or alkaline. A large number of experiments have proved to him that the least contact of arsenious acid, in the concrete state, with a fatty body, is sufficient to reduce its solubility in these different menstrua to one fifteenth or one twentieth of what it would be, *cæteris paribus*, without the intervention of the fatty principle—a fact which may easily be ascertained by testing the proportion of arsenic dissolved by means of starch and tincture of iodine. Since a mere trace of any fat whatever is sufficient to produce this effect, and since neither acids nor energetic bases oppose any obstacle to it, it is evident that there is not in this case any chemical combination between the arsenious acid and the fatty body; and that, therefore, the latter can only interfere mechanically by soaking the arsenious acid, so as to remove it from the action of the aqueous fluids, which would dissolve it. This fact, in itself so simple, is susceptible of numerous applications in toxicology. It explains, in the first place, how it has happened that, in medico-legal analyses, arsenic has sometimes been sought for in vain in the liquid portion of aliments which contained it, when they were more or less fatty, such as soup, milk, &c. It also gives the reason why arsenic, taken in the form of powder, becoming mixed in the stomach with fatty substances, which retard its solution, has occasionally remained a very long time without producing poisonous effects—a circumstance which might, in certain cases, mislead the investigations of justice. In the same way we may account for a very significant fact related by Morgagni, that, in his time, it was not very uncommon to see jugglers swallow, with impunity, pinches of arsenic, because, he adds, they had taken the precaution of swallowing, beforehand, milk and fatty substances, which they brought up again by vomiting after the public had retired. Finally, these experiments show the benefits which may be derived, in this kind of poisoning, from the administration of fatty bodies, especially of milk, which not only have the advantage of acting as emollients, according to the general belief, but which are veritable antidotes, capable of retarding considerably the solution, and consequently the absorption, of the arsenious acid, which, as often happens, still remained in the concrete condition.—*Ibid.*

ON THE DISEASES OF PRINTERS.

By Dr. van Holsbeek.

Dr. van Holsbeek having enumerated the diseases resulting from overwork, from intemperance, want of cleanliness, vicious habits, protracted watching, &c., proceeds to speak of the morbid affections more specially belonging to the printer's art. Fissures of the lips, of varying depths, are of frequent occurrence; at other times tumors are developed on the inner surface of the same parts, which are nothing else than follicles whose excretory ducts are closed. These tumors sometimes inflame, become highly painful, rapidly ulcerate, and assume a cancerous appearance. Such affections of the lip are owing to the habit some compositors have of putting into their mouth the types still moist with the fluid which has served to wash them. Dyspepsia is frequent, as is diarrhœa; the latter is, however, of a transitory and mild nature. Among the most common affections are those of the respiratory passages, of which laryngitis and bronchitis are the principal; pleuritis is rare; pleuro-pneumonia is frequent and severe. These diseases are favored by the curved position which the printers are obliged to maintain during their work, particularly when they correct on the forms, and still more by the night-work, by gas-light, by the dust and emanations in places often confined and badly ventilated. Nearly twenty-five per cent. of printers die of tuberculosis, either hereditary or acquired. Diseases of the heart prevail among the pressmen; hemorrhoids are rare; varices and varicose ulcers are of frequent occurrence; the compositors who correct on the form frequently suffer from cerebral congestions and hæmorrhage. Among nervous diseases we observe tremor of the hands, against which the author successfully employs the electric current. Saturnine colic and paralysis are rarer than formerly, an improvement due principally to the difference in the composition of the materials of which the type is made, to the precaution of cleaning it from dust, as well as frequently rubbing the boxes which contain it; lastly, to the care of the workmen, who no longer put the letters in their mouth. Hernia is common, particularly among the pressmen; in them we occasionally observe distortion of the joints of the fingers. Fissures and callosities form on the thumb and index finger of the right hand, on account of the roughness of the characters, particularly if they are new and damp with the matters with which they are polished; moreover, in consequence of the habit the printers have of washing themselves with alkaline water or bad soap. Amblyopia and myopia, so very prevalent among typographists, terminate the sketch drawn by the author of the diseases of this interesting class of artisans, with whom we are in daily contact, and whose intelligence and diligence we have constant reason to admire.—*Lo Sperimentale*, December, 1859, page 560.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 6, 1860.

THE HUNTER MEMORIAL.—We have been requested to call the attention of the subscribers to the Hunter Fund to a portion of a letter from Mr. South, President of the Royal College of Surgeons, to the Chairman of the Massachusetts Committee. We would also inform the profession in Berkshire, Bristol North and Hampden Counties, whence no subscriptions have, as yet, been received by the Committee, that there will be time enough still left to collect any sums, even the smallest, before the final closing up of the subscription from this side of the Atlantic.

The National Committee, whose circular we printed in our last number, will not finish their labors until after the next meeting of the American Medical Association, at Chicago, in 1861. As the sum is small ($1.00), we cannot but hope that many in those counties, and perhaps from other parts of the State from which reports have already been made, will avail themselves of the present occasion to enrol their names as willing contributors to the fund, the sole object of which is to make an enduring monument to the great fame of our illustrious brother. The names of the Massachusetts Committee are —Henry I. Bowditch, George C. Shattuck, Henry J. Bigelow, Boston; Alfred Hitchcock, Fitchburg; Morrill Wyman, Cambridge. Any one forwarding $1.00 to either of the Committee can have his autograph signature enrolled with lists of those who have already subscribed, which will, eventually, be associated with those subscribers from all parts of the Union and deposited, in one volume, in the Library of the Royal College of Surgeons.

Messrs. Editors,—A few weeks ago, I sent, by a mutual friend, a part of the money collected in Massachusetts for the Hunter fund. It was collected before the National Committee was chosen. All moneys hereafter collected (and three counties remain to be heard from) will be forwarded under the direction of the National Committee.

Though not intended for publication, I cannot forbear sending the following extract from the letter sent by the President of the Royal College of Surgeons in answer to the donation from the physicians of Massachusetts. It is, in fact, due to the subscribers, that it should be laid before them. Yours respectfully,

HENRY I. BOWDITCH.

After acknowledging the receipt of £45 as a *first* instalment from the Massachusetts Committee, and which he hopes will prove "an earnest of the kindly intentions of the National Committee of the American Medical Association," the President continues:—

"You will be pleased to know that we have collected between £1100 and £1200. We have entrusted the execution of the statue to Mr. Weekes, one of our first artists, who, we have no doubt, will most satisfactorily fulfil our wishes. It is determined the statue shall be in a sitting posture—Sir Joshua Reynolds's picture to be the type. Its size will rather exceed that of life, and it will be placed in our Museum, in the large West Chamber. It will probably take two years for its completion." He concludes as follows:—"If our other cousins respond as nobly as the 'old Bay State' has, we shall have a most gratifying proof of the kindly feeling and due estimation which every well-minded man will always desire should be promoted and exist between kindred peoples like our own.

Believe me, yours very truly, JOHN F. SOUTH.

August 2d, 1860."

AMPUTATION OF THE LEG AT THE NEW YORK HOSPITAL.—We notice, in the second lecture of Dr. Watson, published in the *Medical Times* for August 25, a statement, with regard to the amputation of the leg, so extraordinary that we cannot forbear some allusion to it.

> "In the first place you have observed, when I amputate at the leg, that I never carry the saw directly through the bone. If this were done, the sharp anterior angle of the shin would come in contact with that portion of the flap covering it, and in consequence of the abruptness of the pressure at that point, ulceration would be established. To obviate the occurrence of such a state of things, Dr. Kearney Rodgers advised that the angle of bone referred to, should be sawn off obliquely. This practice I have invariably followed out, and I believe it is also looked upon with favor by my colleagues, who, as far as I know, always carry out the principle. I would here remark that this is a practice which is not resorted to, as a general rule, outside. When I operated, a few days ago, by taking off a

leg, and after I had sawn off the angle of bone, a surgeon from Boston, who was present, remarked to me that he had never seen such a thing done before."

Now as we cannot for a moment suppose the lecturer to be unfamiliar with the numerous treatises on surgery in which this method of operating is directly alluded to, we are compelled to infer what is equally unaccountable, that he is unacquainted with the practice which has been in vogue, among civil and military surgeons, for more than half a century, and this considerably "outside" the limits of Gotham.

In the *Cyclopœdia of Practical Surgery,* published in 1837, p. 177, it is stated that it has been the practice, both in England and on the Continent, for thirty years. The operation is also mentioned in *Skey's Operative Surgery,* Philadelphia, 1851; *Sedillot's Tr. de Med. Operatoire,* Paris, 1840; *Cooper's Surgical Dictionary,* New York, 1844; *Druitt's Practice and Principles of Surgery,* Philad., 1847; *South's Chelius,* Philad., 1847; *Vidal's Tr. de Path. Ext.,* Paris, 1851; *Velpeau's Elements of Operative Surgery,* New York, 1844; *Hargrave's System of Operative Surgery,* Dublin, 1831; and by Malgaigne, in his *Manual de Med. Operatoire,* Paris, 1849.

The two latter authors attribute the method to Beclard, Hargrave citing *Sabatier's Medecine Operatoire* as authority.

Velpeau, in speaking of the liability of the anterior angle of the tibia to perforate the integuments, and of methods to obviate it, says, "a much surer method consists in removing, with the cut of the saw, the corner of the angle of the osseous border itself. It is not known to whom belongs the first suggestion of this improvement, unless it be to *Assalini,* who, I believe, first speaks of it in his manual of Surgery. Military surgeons have long been in the habit of practising it. It was pointed out in the beginning of this century by an army surgeon, whose name I have forgotten. M. Marjolin and M. Beclard, in teaching it in their lectures, have caused its adoption among French surgeons. Mr. Guthrie, S. Cooper and other surgical practitioners have also long since made mention of it."

It appears, therefore, that Beclard, Sabatier and others were well aware of this process. The former died in 1825, and the latter in 1800, and therefore Dr. Rodgers must have suggested its adoption at an extremely early age.

In Boston, the operation has been taught for twelve years at least, has been repeatedly practised at the Massachusetts General Hospital, where it was performed on the very day on which the *Medical Times* was published that contains these remarks. We know not who the Boston surgeon is, referred to by Dr. W., but we would recommend him, before availing himself of the privileges of foreign hospitals, to become somewhat acquainted with the practice of those nearer home.

NEW SYDENHAM SOCIETY.—From the report presented to the Second General Meeting of the New Sydenham Society, held at Liverpool, July 29th, 1859, it appears that the Society now numbers 1820 members, of whom 1614 have paid their subscriptions. It is also stated that a Year-book for the current year is in course of preparation, and will, it is hoped, be soon ready for issue. This volume will be an expensive one. It is designed to form a tolerably complete register of all important communications, whether British or foreign, on Medicine, Surgery, and their allied sciences, during the year. References will be given to all papers, and of the more valuable, short extracts will also be afforded. As nothing will be done in the way of lengthy quotation, and as foreign literature will occupy a great portion of the work, it will differ essentially from the two Medical Retrospects already in the hands of the profession, with which it is hoped it will in no way interfere. It is, of course, intended that the Year-book shall be an annual volume.

The following extract from the Report may not be uninteresting to our readers, in connection with the proposed issue of Hebra's Atlas.

> "With the experience of the past year, careful calculations have been made which show that, with the subscriptions of 2000 Members for 1860, the Council will be able to issue four volumes (the Year-book and three others) to every Member. Estimates have also been obtained as to the lowest possible cost at which copies of Hebra's magnificent Atlas of Plates (life size) of Skin Diseases might be obtained. If issued at the rate of three plates each year, with a number of Members not exceeding 2000, their cost would so far absorb the income of the Society as to make it impossible to get out more than two other volumes. If, however, by the strenuous exertions of its present Members the Society could be increased to 3000, then the plates referred to might be issued without in the least interfering with its other operations. In other words, should the Society for 1860 number 2000 Members, each individual Member will receive four books; but should it number 3000, he will receive the same four books, and three of Hebra's plates in addition.
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> "Under these circumstances, the Council has determined to make an appeal to the profession. It feels that it need say nothing as to the advantage which will be conferred on Medical Science, should 3000 copies of these life-like portraits be placed in the hands of those who have to practise our art. In this number would be included not only residents in the British Isles, but in America, and our most distant colonies. The boon would literally be world-wide; for hitherto, on account of the great cost of such works, no good Atlas of Skin Diseases has got into general circulation.
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> "If, therefore, at the expiration of the present year, the number of Members who have paid their subscriptions for 1860 should reach 3000, the Council will at once give the order for the preparation of the plates. The latter, on account of the length of time occupied in coloring, could not be sent out till near the end of the year. By issuing three a year, and by a judicious selection of subjects, a very useful Atlas would soon be obtained."

It is to be hoped that the Profession in this country will generally respond to the appeal made by this useful Society, and thus promote the success of an institution, whose sole end and aim is the advancement of sound medical learning.

MOUNT HOLLIS SEMINARY.—We have received a printed Circular from the Principal of this Institution, Dr. J. H. Nutting, from which we are glad to learn that, in connection with a classical and business education, more than usual attention is here given to the physical development of pupils. From the fact that the Principal is a physician of considerable professional experience, we are inclined to regard the School as worthy of peculiar confidence. As has been said, the importance of these exercises cannot be overrated, but it is equally necessary that they be under the immediate supervision and direction of some one with an eye to the wants of each pupil, and the skill to adapt the means to the end required.

NEW YORK MEDICAL COLLEGE.—It will be noticed by the announcement for the eleventh session of this Institution, that the regular session will commence on the 15th of October, and continue five months.

In addition to daily cliniques on medicine, surgery and obstetrics, there are to be four lectures daily, during the course. We notice, among its other professorships, that of Infantile Pathology and Therapeutics, a department of practical medicine, which, as has been well said, has not hitherto received the attention it deserves. The establishment of this Chair it is hoped will lead to an increased attention to this important subject in other schools. Dr. Jacobi, who has received the appointment to this professorship, is eminently qualified as a teacher in this department, and will be enabled to bring to his aid the results of much learning and experience.

The Public Health.—The London *Times* gives the average of deaths per week in the British metropolis as 1,227. In New York the average is about 550. Estimating the population of London at two and a half millions, and of New York at one million, these figures would show that the mortality in London and New York is exactly the same. New York, however, ought to be infinitely more healthy than the British metropolis. With a river on either side, and such opportunities as it possesses for effectual drainage, this City should be far from unhealthy. Though our mortality does not exceed the mortality of London, we are still behind the British in all measures of sanitary reform. Sanitarians declare it to be quite possible to diminish by ten per cent. the number of deaths that occur in New York. If this be true, the subject is surely one that deserves more attention than it receives from legislators and philanthropists.—*New York Times.*

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, September 1st, 1860.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week, ...	53	47	100
Average Mortality of the corresponding weeks of the ten years, 1850–1860,	54.3	48.0	102.3
Average corrected to increased population, ...	..	..	116.7
Deaths of persons above 90, ...	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infantum.	Scarlet Fever.	Pneumonia.	Measles.	Smallpox.	Dysentery.
8	22	4	4	0	2	4

METEOROLOGY.

From Observations taken at the Cambridge Observatory.

Mean height of Barometer, . . .	29.626	Highest point of Thermometer, . . .	77°
Highest point of Barometer, . .	30.028	Lowest point of Thermometer, . . .	51°
Lowest point of Barometer, . . .	29.681	General direction of Wind, . . .	Westerly.
Mean Temperature, ...	67°.5	Whole am't of Rain in the week . .	0.551 in.

Communications Received.—Case of Hydrophobia. Twins of unusually large size.

Books.—Skin Diseases, and their Remedies, by Robert J. Jordan, M.D., &c. (From the author.)

Erratum.—On page 79, line 14, for "micturition," read *nutrition*.

Deaths in Boston for the week ending Saturday noon, September 1, 100. Males, 53—Females, 47.—Accident, 4—congestion of the brain, 2—disease of the brain, 3—bronchitis, 1—cholera infantum, 22—cholera morbus, 2—consumption, 8—convulsions, 3—croup, 1—debility, 1—diarrhœa, 6—dropsy, 1—dropsy of the brain, 5—drowned, 2—dysentery, 4—epilepsy, 1—scarlet fever, 4—typhoid fever, 2—disease of the heart, 1—intemperance (delirium tremens), 1—disease of the kidneys (Bright's), 1—congestion of the lungs, 2—inflammation of the lungs, 4—marasmus, 2—neglect, 1—old age, 2—pericarditis, 1—premature birth, 5—spina bifida, 1—smallpox, 2—tabes mesenterica, 1—teething, 2—tumor (ovarian), 1—whooping cough, 1.

Under 5 years, 66—between 5 and 20 years, 5—between 20 and 40 years, 17—between 40 and 60 years, 7—above 60 years, 5. Born in the United States, 87—Ireland, 11—other places, 2.